

A New Default

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RFC6944

Must Implement	Must Not Implement	Recommended to Implement	Optional
RSASHA1	RSAMD5	RSASHA256 RSASHA1-NSEC3-SHA1 RSASHA512 ECDSAP256SHA256 ECDSAP384SHA384	Any registered algorithm not listed in this table

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If the status of any algorithm in the table changes, a new document shall make this document obsolete.

That document shall include a replacement of the table.

It is not meant to be a discussion on algorithm superiority.

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RSASHA256	RSAMD5	RSASHA1 RSASHA1-NSEC3-SHA1 RSASHA512 ECDSAP256SHA256 ECDSAP384SHA384	Any registered algorithm not listed in this table

Number	Description	Mnemonic	Zone Signing	Trans. Sec.	Reference
0	Delete DS	DELETE	N	N	[RFC4034] [RFC4398] [RFC8078]
1	RSA/MD5 (deprecated, see 5)	RSAMD5	N	Y	[RFC3110] [RFC4034]
2	Diffie-Hellman	DH	N	Y	[RFC2539] [proposed standard]
3	DSA/SHA1	DSA	Y	Y	[RFC3755] [proposed standard] [RFC2536] [proposed standard] Publication (FIPS PUB) 186, Digital Signature Standard Standards Publication (FIPS PUB) 180-1, Secure Hash 180 dated 11 May 1993.)]
4	Reserved				[RFC6725]
5	RSA/SHA-1	RSASHA1	Y	Y	[RFC3110] [RFC4034]
6	DSA-NSEC3-SHA1	DSA-NSEC3-SHA1	Y	Y	[RFC5155] [proposed standard]
7	RSASHA1-NSEC3-SHA1	RSASHA1-NSEC3-SHA1	Y	Y	[RFC5155] [proposed standard]
8	RSA/SHA-256	RSASHA256	Y	*	[RFC5702] [proposed standard]

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1	RSA/MD5 (deprecated, see 5)	RSAMD5	N	Y	[RFC3110][RFC4034]
2	Diffie-Hellman	DH	N	Y	[RFC2539][proposed standard]
3	DSA/SHA1	DSA	Y	Y	[RFC3771][proposed standard][RFC2536][proposed standard Publication (FIPS PUB) 186, Digital Signature Standard Standards Publication (FIPS PUB) 180-1, Secure Hash Algorithm 1 (SHA-1) 180 dated 11 May 1993.)]
4	Reserved				[RFC5725]
5	RSA/SHA-1	RSASHA1	Y	Y	[RFC3110][RFC4034]
6	DSA-NSEC3-SHA1	DSA-NSEC3-SHA1	Y	Y	[RFC5155][proposed standard]
7	RSASHA1-NSEC3-SHA1	RSASHA1-NSEC3-SHA1	Y	Y	[RFC5155][proposed standard]
8	RSA/SHA-256	RSASHA256	Y	*	[RFC5702][proposed standard]

nothing changes here...

Then why bother?

- A new “mandatory” algorithm allows implementations to shift its DEFAULT algorithm. It paves the way to make SHA1 less utilised.

So it can go the way of RSAMD5

- Any other advice, discussions on algorithm use lifetimes, algorithm choice, algorithm superiority, guidelines on what validators, signers etc., should (-/+) or must (-) do, belongs in a Best Current Practice.

Request to the working group

- Call for adoption of draft-arends-dnsop-algorithm-update
 - Proposed Standard track
 - Updates applicability statement with a minimal change.
- Consider draft-wouters-sury-dnsop-algorithm-update as BCP
 - The WG has already adopted this document.
 - Please consider it for the category: Best Current Practise
 - As it contains guidelines for implementors and deployment discussions
- NOTE: These are complementary, not mutual exclusive.